



ISSN: 2321-8819 (Online) 2348-7186 (Print) Impact Factor: 1.498 Vol.5, Issue 9, September 2017

A study on the impact of Communities of Practice on Informal Learning and Collaborative Knowledge Building among employees

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Abstract: The study investigates the impact of communities of practice on informal learning and collaborative knowledge building within teams. With informal learning gaining attention, it is imperative to study the organizational processes that facilitate knowledge sharing and exchange among team members. The study explores the uniqueness of communities of practice to identify the nature of learning and knowledge building in organizational teams. It studies the model of collaborative knowledge building to highlight knowledge building processes within communities.

Key words: Communities of Practice, Informal Learning, Collaboration, Collaborative Knowledge Building, Knowledge sharing

Introduction:

Modern organizations are run on knowledge and strive to design and craft organizational forms that support learning and sharing of knowledge to improve organizational performance. To name a few - Cross-functional teams, customer or product focused business units, work groups, problem-solving groups and others. One of the newer organizational forms that promises to radically galvanize knowledge sharing and learning is a Community of Practice (CoP).

What are communities of practice? In brief, they're groups of people informally bound together by shared expertise and passion for a joint enterprise — consultants specialized in strategic people practices, front line managers of large banks, quality managers in manufacturing firms. People in communities of practice share their experiences and knowledge with regular interactions in free-flowing, creative ways that foster new approaches to problems. Communities of Practice play a crucial role in knowledge management activities of organizations due to their self-organizing nature that promotes knowledge building and sharing within organization and its constituent entities.

Section I: Literature Review:

a. Communities of Practice

"Communities of Practice" is a term that refers to the ways in which people naturally work together. It acknowledges and celebrates the power of informal communities of peers, their creativity and resourcefulness in solving problems, and inventing better, easier ways to meet their commitments.

The term 'community of practice' was coined by Etienne Wenger and Jean Lave in the early 1990s to describe 'a group of people who share a concern, a set of problems or a passion about a topic, and who deepen their knowledge and expertise by interacting on an ongoing basis' (Wenger et al., 2002).

Communities of practice are groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly. An essential aspect to be noted is that it does not assume intentionality: Learning can be the reason the community comes together or an incidental outcome of member's interactions.

Three characteristics are crucial:

1. The domain: A community of practice is not merely a club of friends or a network of connections between people but has an identity defined by a shared domain of interest. Membership implies a commitment to the domain and members value their collective competence and learn from each other, even though few people outside the group may value or even recognize their expertise. Thus, the domain may not be necessarily something recognized as "expertise" outside the community.

2. The community: Members pursue their interest in their domain, by engaging in joint activities and discussions, help each other, and share information. They build relationships that enable them to learn from each other as they engage actively through



conversations, interactions that enable knowledge sharing and transfer.

3. The practice: A community of practice is not merely a community of interest- members of a community of practice are practitioners. They develop a shared repertoire of resources: experiences, stories, tools, ways of addressing recurring problems—in short, a shared practice. For eg.: The "windshield wipers" engineers at an auto manufacturer make a concerted effort to collect and document the tricks and lessons they have learned into a knowledge base. This knowledge is built over time and evolved through sustained interaction.

Our concept of a community of practice comes from the work of Wenger and Snyder who define it as "a group of people informally bound together by shared expertise and passion for a joint enterprise," or similarly, as a collection of individuals bound by informal relationships that share similar work roles and a common context.

According to Etienne Wenger (1998), a community of practice defines itself along three dimensions: **What it is about** – its *joint enterprise* as understood and continually renegotiated by its members. **How it functions** - mutual engagement that bind members together into a social entity. **What capability it has produced** – the *shared repertoire* of communal resources (routines, sensibilities, artefacts, vocabulary, styles, etc.) that members have developed over time.

b. Value Proposition of Communities of Practice:

- Developing and spreading better practices faster
- Connecting "islands of knowledge" into self-organizing, knowledge sharing networks
Of professional communities
- Feeding and being fed by web-based repositories both proven solutions and new approaches
- Fostering cross-functional and cross-divisional collaboration
- Increasing your members' ability to initiate and contribute to projects across organizational boundaries

c. Informal Learning:

Informal learning includes a variety of methods, such as working experience with success, trial and

error, on-the-job training, coaching, mentoring, talking and sharing with others, and searching the internet. The term informal learning was introduced in the 1950s by Malcolm Knowles in his pioneer work on informal adult education.

Marsick and Watkins (1997) suggested that not only is informal learning unique to the individual, but control of learning rests primarily in the hands of the learner. Informal learning draws attention to the learning that takes place in the spaces surrounding people, activities and events in the workplace

According to Marsick and Watkins 'people learn in the workplace through interactions with others in their daily work environments'. Boud and Garrick (in Boud & Garrick 1999) have acknowledged informal interaction with work colleagues as a predominant way of learning in the workplace; however, it is often considered 'part of the job' and not acknowledged as formal learning (Boud & Middleton 2003).

Informal learning is based on learning from experience; embedded in the organizational context, oriented to a focus on action; governed by non-routine conditions; concerned with tacit dimensions that must be made explicit; delimited by the nature of the task, the way in which the problems are framed, and the work capacity of the individual undertaking the task; and, enhanced by proactivity, critical reflectivity and creativity. It is learner initiated, occurs on as-needed basis, is motivated by intent to develop, involves action and reflection, and does not occur in a formal classroom setting (Bear et al., 2008; Tannenbaum, Beard, McNall, & Salas, 2010).

a. A model of Collaborative Knowledge Building:

Gerry Stahl has proposed a model of collaborative knowledge building that incorporates insights from various theories of understanding and learning specifically collaborative knowledge building environments (Figure 1). It explicitly considers the relationship of processes associated with individual minds to those considered to be socio-cultural by naming a set of cognitive and social processes and presents a model of learning as a social process incorporating multiple distinguishable phases that constitute a cycle of personal and social knowledge-building.

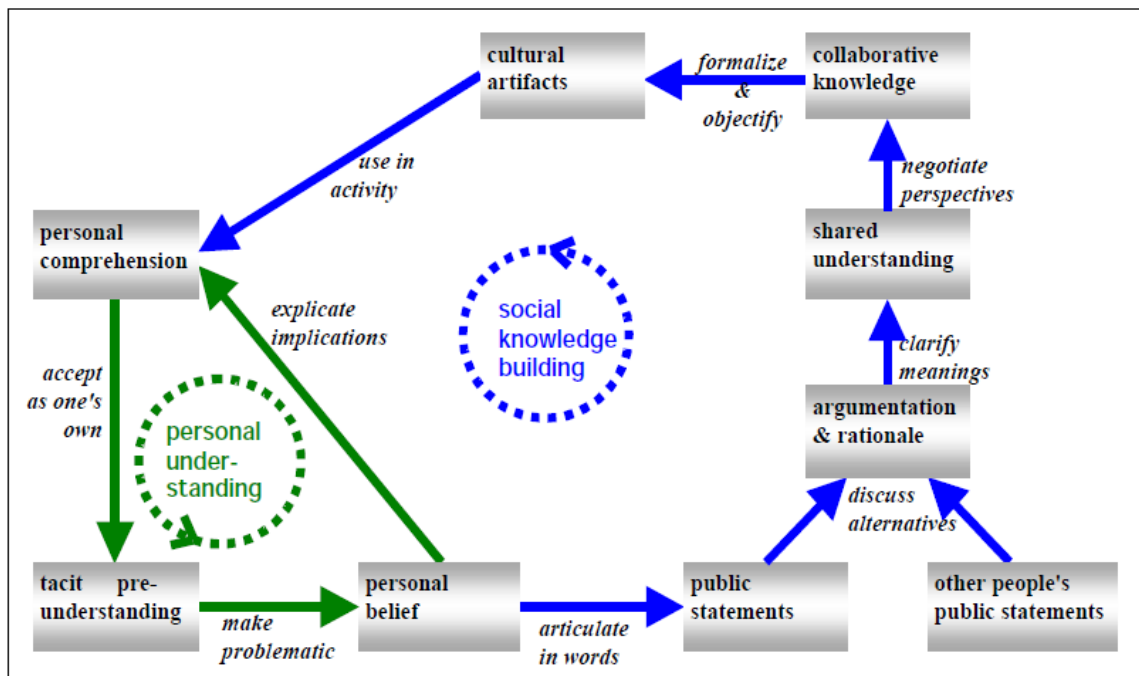


Figure 1. A diagram of knowledge-building processes.

The diagram attempts to model the mutual constitution of the individual and the social as a learning process. Starting in the lower left corner it shows the cycle of personal understanding. The rest of the diagram depicts how personal beliefs enter into a social process of interaction with other people and the shared culture. This culture enters into our personal understanding, shaping it with ways of thinking, motivational concerns and diverse influences.

When an individual's personal belief, generated on basis of socio-cultural knowledge, shared knowledge and external representations; is articulated in words and this public statement is taken up in a social setting and discussed from the multiple perspectives of several participants, we build upon and supplement cycles of individual learning of several individuals.

The communication process that results in knowledge incorporates argumentation that can introduce empirical evidence and logical deduction from other established knowledge. The interchange may gradually converge on a shared understanding resulting from a clarification of differences in interpretation and terminology.

Nelson and Coopriider argued that knowledge sharing could only be archived through mutual trust, an element of collaborative culture. Palanisamy suggested a knowledge friendly organizational culture as a catalyst for the process of knowledge management process of which knowledge building is a crucial component.

If the communication is relatively free of hidden agendas, power struggles and un-discussed prejudices, then arguments and clarification can lead to agreement or at least mutual understanding. If different perspectives result in acceptance of a common result, then such result is accepted as knowledge. In this way, collaboration and undistorted communication mediate between personal belief and accepted knowledge.

Research Gap:

In the current era, organizations face competitive pressures, diverse customer expectations and rapid changes in technology. Organizations spend millions on formal learning and knowledge management systems to improve employee knowledge and skills. Yet, researchers have pointed out that workplace learning occurs mainly outside of formal learning environment. While there are numerous studies on the learning within teams and organizational learning, there is limited research on the role of communities of practice in promoting informal learning among employees. In addition to the studies carried out to explore the role of teams on collaborative work behaviours, this study explores how communities of practice impacts collaborative knowledge building at the workplace

Research Objectives:

1. To identify the impact of communities of practice on informal learning among employees
2. To identify the impact of communities of practice on



- collaborative knowledge building among employees
3. To examine the characteristics of communities of practice that drive knowledge sharing
 4. To evolve organizational strategies that support “community-driven” approach to learning and knowledge creation

Hypothesis:

Hypothesis 1:

H₀₁: There is no significant difference among the opinions of the respondents in general that communities of practice have an impact on informal learning practices among employees

H₁₁: There is significant difference among the opinions of the respondents in general that communities of practice have an impact on informal learning practices among employees

Hypothesis 2:

H₀₂: There is no significant difference among the opinions of the respondents that communities of practice have an impact on collaborative knowledge building

H₁₂: There is significant difference among the opinions of the respondents that communities of practice have an impact on collaborative knowledge building

Research Methodology:

Secondary Data Sources: The study is based on secondary data collected from various sources: books, journals, magazines, reports and electronic media.

Primary Data Sources: The study is explorative in nature. The study uses a Mixed Research

design. The study uses Non-Probability sampling.

Research Tools: The researchers used tools like a questionnaire and a Structured Interview. The aim of the survey was to find out the impact communities of practice on informal learning and collaborative knowledge building among employees in organizations.

Sample group & Sample size: To obtain the required information, a pre-prepared structured interview was used to conduct 200 interviews with managers at middle and junior management levels across organizations.

SECTION I: Informal Learning within Communities of Practice

Learning is influenced by constraints and/or opportunities present within organizations' systems, reward processes and cultures that are friendly or unfriendly to learning; they are also influenced by the availability of resources, and whether these are limited or unlimited (Marsick and Watkins 1996). Rothwell (2002) identified learning-oriented leadership as one of the key aspects of organizational factors that encourage/discourage workplace learning.

Active communication in an organization is imperative to the successful practice of management. It is especially important to facilitate informal learning with peers in the workplace – this involves knowledge-sharing and the exchange of information to solve problems and generate new ideas (Lewicki and Bunker 1996). Good communication with peers and possibilities for collegial feedback based on positive, constructive communication is one organizational factor that encourages workplace learning (Doombos, Bolhuis, and Simons 2004; Rothwell 2002).

CoPs are characterised by mutual learning, shared practice and joint exploration of ideas. CoPs create trusted relationships for the exchange and practise of ideas and emerge naturally from existing relationships and allegiances and are self-incentivising in terms of inherent rewards, social learning and collaboration.

Section II: Role of CoPs in Collaborative Knowledge Building

Knowledge is founded in the thinking that circulates in a community, where language is shared, trust allows exploration of heuristics, patterns may be crafted and subtle symptoms, and repetitive working solutions are spread via story telling.

The process of dynamic knowledge building occurs when internal (tacit) knowledge becomes external (explicit). The continuous feedbacks that operate between internal and external knowledge are producing new knowledge among entities and create the energy and permanent innovation that are essential for organizational performance.

Knowledge building is a process that relies on the organization creating an environment that nurtures knowledge building activities and increases the core capabilities of the individuals within the organization. These kinds of activities include shared problem solving, experimenting and prototyping, importing knowledge from outside the organization, as well as implementing and integrating new processes and tools.

On an organizational level, knowledge creation can occur through knowledge conversion, knowledge



building, or knowledge linking. Additionally, organizational information seeking or sense-making can drive knowledge creation as can organizational learning. Knowledge management efforts can facilitate knowledge creation by helping individuals develop knowledge-compatible competencies and by designing systems that provide enabling infrastructure.

Communities of Practice emerge as valuable organizational assets as organizations recognize that benefits can accrue not only to individual members of a community but also to the organization itself. Communities also appear to be an effective way for organizations to handle unstructured problems and to share knowledge outside of the traditional structural boundaries.

a. Knowledge building processes within cops:

Knowledge is always tacit in nature that resides within the individual person (Bennet & Bennet, 2008; Haldin-Herrgard, 2000). Kim 1993 Friedman 2002 et al have said that the individual employees are the ones that do the learning. Further, Haldin-Herrgard, 2000; Yang, 2008 have stated that they must share their knowledge to make it explicitly available to the organization to enable the organization to learn, to capture the valuable information to be included into the processes and procedures.

Nonaka & Von Krogh, 2009 have stated that the learning individual, within the CoPs, share and transfer their knowledge which initially is tacit in nature into the organization learning process, converting the tacit knowledge into explicit knowledge. The CoP contributes actively into the organizational learning activities by sharing and transferring their implicit knowledge into the organizations' explicit knowledge (Godkin, 2010). These steps are crucial to the process of knowledge creation and knowledge building in organizations.

As researched by Lynn Godkin (2010), the CoP is one of the leveraging sources for insight inertia. CoP's characteristics as a learning agent in an informal setting with mutuality in sharing concerns, problems, or about a topic help in overcoming hiccups in organizational learning. It is obvious that something within these people that openly and voluntarily wanting to share their knowledge and expertise through the feelings of sense of community, sense of common identity, shared resources and collective learning and sense of mutual engagement (Ash Amin & Joanne Roberts, 2008; Lave, 1991).

The CoP possesses the characteristic of willingness to share their experience and knowledge in free-flowing manner, creatively finding ways to find

solutions to problems, acting as stimuli for relationships system (Akkerman et al., 2008; Borzillo et al., 2012).

Wenger (2006) has established that they interact frequently that inevitably leads to the sense of connectedness and common identity with mutual purposes and objectives, developing the trust and rapport which is crucial for these people to willingly and openly share their knowledge and expertise. When Communities of Practice generates knowledge, they renew themselves from the knowledge sharing activities, through the process of learning and relearning.

a. Collaborative Organizational Structures that support Knowledge Building:

In a business environment, the creation of shared context such as business direction, future vision, objectives, spheres of influence or activity is crucial to knowledge management. Shared context is defined as "a shared understanding of an organisation's external and internal worlds and how these worlds are connected."

The supposition is that shared context is developed by something more than communication, casual acquaintance or an awareness of a group of people who share interest in a topic or topics. It requires some bonding activity to take place, perhaps a face-to-face meeting, an exchange of views, the establishment of a common vocabulary, and perhaps a correlation of beliefs, attitudes and opinions about the participants.

Research suggests the presence of new collaborative structures such as "Communities" or "networks". Teams typically created by the organization and nested within hierarchical structures, appear to be a construct firmly within the power of the organisation. Communities differ in how they interact, both in terms of differences in types of members and differences in how communities are organized. 'Networks' and 'Communities' are allowed to develop more freely and cut across organisational and professional boundaries.

Collaboration appears to be stimulated by the increased opportunity for communication irrespective of whether the corporate knowledge management initiative is content, technology or culture led.

Observations and Findings:

1 The quantitative data analysis ultimately confirms that in case of hypothesis 1 there is a positive correlation between communities of practice and informal learning among employees. Hence null



hypothesis is accepted and alternate hypothesis is rejected.

2. Data analysis also verified a significant positive relationship between communities of practice and collaborative knowledge building among employees. Using survey data, we found that there is a positive alignment between communities of practice and their knowledge sharing behaviours. Hence, in the case of hypothesis 2, null hypothesis is accepted.

3. CoP is predominantly involved with members willingness to share and learn in an informal free flowing manner; and may include self-directed learning, networking, interactions and conversations related to areas of interest about work topics and practices. The interactive mechanisms among community members provide opportunities for informal learning among employees.

4. Design and nurture of communities of practices within organizations offers a higher order advantage to firms – higher learning, knowledge acquisition and knowledge sharing culture

4. Communities of Practice are driven by a need to interact frequently, which leads to a sense of connectedness and common identity with mutual purposes and objectives. This develops the trust and rapport crucial for willing and open sharing of knowledge and expertise, which facilitate knowledge creation in organization. When CoPs generate knowledge, they renew themselves from knowledge sharing activities through learning and relearning. Hence, there is a strong correlation between Communities of Practice within the organizations and informal learning and knowledge building among employees.

Strategies and Recommendations:

1. Organizational strategies that promote a culture revolving around communities of practice provide opportunities for – open and willing employee interaction, knowledge creation and sharing and individual learning. The community driven approach enhances the quality of informal learning processes at the

workplace. Individual employees benefit from these community driven knowledge interactions and exchanges by developing a collaborative approach crucial for high organizational performance.

2. Organizational leaders and managers responsible for knowledge management may act as catalysts within the knowledge community that drive knowledge sharing and exchange and channelize the informal learning outcomes into desirable organizational objectives. These employees are also likely to nurture a climate of openness, trust and positive organizational behaviours and drive a community based knowledge centric culture

Conclusion:

Organizational encouragement for knowledge creation is a vital aspect of the work environment and encompasses fair and supportive evaluation of inputs and ideas, collaborative knowledge flow across the organizations, and rewards and recognition for knowledge contributions. While retaining the focus on knowledge management systems and learning activities, it is imperative to examine the relationships among the knowledge sharing employees, knowledge processes, outcomes of knowledge interactions and the environment within which the knowledge interactions occur.

Communities of practice are emerging organizational forms that have the potential to dramatically change how enterprises leverage knowledge to deliver value. CoPs have been widely adopted as part of the knowledge management toolkit and form the foundation of knowledge management because it is through them that knowledge gets both created and turned into action. Over the next few years, we can expect to see CoPs evolve in multiple forms and aligning to new management techniques to manage knowledge and learning within organizations.

Organizations focused on knowledge building must shift the focus of their initiatives to developing an open culture of communication and collaboration that values informal learning as an integral part of organizational performance and business practice.

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